

**"A connector member for electrical connections through  
a wall of a fuel tank, particularly for the LPG fuel  
tank of a motor vehicle"**

5      Background of the invention

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The present invention relates to fuel tanks for motor vehicles, in particular to ~~LPG fuel tanks~~ for motor vehicles.

Liquid Petroleum Gas (LPG) fuel tanks

10      For some time now the present applicant has studied and developed systems of supply via injection of LPG for engines of motor vehicles, which use a plurality of LPG injectors associated to the cylinders of the engine, which are supplied with LPG coming from a tank.

15      Supply systems of the type referred to above are, for example, described and illustrated in the European patent No. EP-B-0 725 205 and in the European patent No. EP-B-0 922 851 in the name of the present applicant, as well as in the corresponding patents Nos. US-A-5 592 924 and US-A-6 050 237. The present  
20      applicant has also filed various patent applications regarding the tank of the supply system in question and to the various electrical and hydraulic components that are associated thereto. Typically, the tank has a hollow body, within which there are housed one or more  
25      electrical components. For example, provided within the tank is a pump for supply of the LPG, designed to operate submersed in the LPG contained within the tank and actuated by an electric motor also contained within the tank. The tank is also provided with one or more  
30      level sensors that also require electrical connections.

35      The various pipe unions for connection of the tank with the electrical and hydraulic lines of the system for supplying LPG to the engine of the motor vehicle are provided on a closing plate that covers a mouth provided in the body of the tank. A structure of this